

CLAIMS

I/We claim:

1. A toothed rack steering gear assembly comprising:
 - an adjusting nut having external threads;
 - a housing having portions defining an opening with internal threads, the opening adapted to the adjusting nut so as to receive the adjusting nut in an assembled state of the rack steering gear assembly, at least one recess being provided in the housing, the recess being in direct proximity of the opening;
 - a retainer having a ring shaped body and further having at least one finger protruding from the ring shaped body, the finger corresponding to the recess and being located and positioned in the recess, the at least one recess and the at least one finger corresponding in number;
 - the retainer further including a back surface and the adjusting nut further including a front surface, in the assembled state the front surface of the adjusting nut being in contact with the back surface of the retainer, the adjusting nut and the retainer being fixedly and securedly connected to each other between the back surface and the front surface in the assembled state of the assembly.
2. The toothed rack steering gear assembly according to claim 1, wherein the adjusting nut includes a drive portion enabling adjustment of the adjusting nut relative to the housing, the drive portion being positioned within an opening defined by the ring shaped body of the retainer.

3. The toothed rack steering gear assembly according to claim 2, wherein the drive portion is a multi point driving head.

4. The toothed rack steering gear assembly according to claim 1, wherein the at least one recess is open in a direction of the internal threads.

5. The toothed rack steering gear assembly according to claim 1, wherein the at least one finger defines an inner surface corresponding with the internal threads, projections being formed on the inner surface of the at least one finger.

6. The toothed rack steering gear assembly according to claim 1, wherein the at least one finger is connected with the ring shaped body in a way that when applying a torque above a threshold value to the ring shaped body the at least one finger in the at least one recesses break off.

7. The toothed rack steering gear assembly according to claim 1, wherein in an axial direction the at least one recess extends only over a sub-range of an axial length of the internal threads so that, starting from a front surface of the housing, there is an unimpaired part of the internal thread beyond the at least one recess, and wherein an axial length of the external thread of the adjusting nut is larger than an axial length of the at least one recess.

8. The toothed rack steering gear assembly according to claim 1, wherein the retainer and adjusting nut are fixedly connected by a rib that protrudes from one of the back surface or the front surface and which during an ultrasonic welding melts and effects a rigid connection.

9. The toothed rack steering gear assembly according to claim 1, wherein the retainer and adjusting nut are fixedly connected by an adhesive.

10. The toothed rack steering gear assembly according to claim 1, wherein the retainer and adjusting nut are fixedly connected by an encapsulated adhesive.

11. The Toothed rack steering gear assembly according to claim 1, wherein the retainer and adjusting nut are fixedly connected by connecting devices that cause a connection between the back surface and the front surface at a desired point in time.

12. A method for the production of a toothed rack steering gear assembly comprising the steps of:

screwing an adjusting nut into a preliminary position in an opening of a housing, the preliminary position not corresponding to a final position;

attaching a retainer onto the adjusting nut by pressing fingers on the retainer into associated recesses in the opening of the housing;

causing a connecting device on one of the adjusting nut and retainer to come into contact with the other of the adjusting nut and retainer with no connection thereby being effected;

adjusting the adjusting nut into an the final position optimal for the toothed rack steering gear assembly; and

effecting connection of the retainer and the adjusting nut by the connecting device so that a mechanically fixed connection between the retainer and the adjusting nut is obtained.